IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Previously Presented) An optical arrangement for interacting with a radiation beam, the optical arrangement comprising an optical system and a compensator, the compensator including a first optical element, the first optical element having a phase structure comprising stepped annular areas forming a non-periodic pattern of optical paths of different lengths, the compensator being arranged to generate:

a first wavefront deviation introduced by the variation of a first parameter during interaction of the radiation beam with the compensator, the first wavefront deviation being arranged to counteract a wavefront deviation introduced by the variation of the first parameter during interaction of the radiation beam with the

optical system; and

a second wavefront deviation introduced by the variation of a second, different, parameter during interaction of the radiation beam with the compensator,

wherein the compensator further includes a second optical element formed from a different material than the first optical element and having a phase structure comprising stepped annular areas forming a non-periodic pattern of optical paths of different lengths, the second optical element being arranged to reduce said second wavefront deviation,

wherein the annular areas of the first optical element are stepped by a step height of h_j and the annular areas of the second optical element are stepped by a step height of b_j and wherein the first optical element is arranged such that, for each said annular area, the step height h_j is substantially equal to:

$$h_j = m_j \frac{\lambda}{n_1 - 1}$$

where m_j is an integer, λ the wavelength and n_1 is a refractive index of a first material from which the first optical element is made, and

wherein the second optical element is arranged such that, for each said annular area, the step height b_j is substantially equal to:

$$b_j = q_j \frac{\lambda}{n_2 - 1}$$

where q_j is an integer, λ the wavelength and n_2 a refractive index of a second material of which the second optical element is made.

Claim 2 (Canceled)

3.(Previously Presented) The optical arrangement according to claim 1, wherein the first optical element and the second optical element have correspondingly arranged annular areas, and wherein the step heights h_j, b_j are interrelated.

4.(Previously Presented) The optical arrangement according to claim 3, wherein the step heights h_j, b_j are related by way of a substantially constant parameter K, the value of the constant

parameter K depending on a compensating function of the respective

optical elements.

5.(Previously Presented) The optical arrangement according to

claim 4, wherein:

$$K = \frac{m_j}{q_j} \; .$$

6.(Previously Presented) The optical arrangement according to

claim 4, wherein:

$$K \approx -\frac{\dfrac{1}{\lambda} - \dfrac{\dfrac{dn_2}{d\lambda}}{n_2 - 1}}{\dfrac{1}{\lambda} - \dfrac{\dfrac{dn_1}{d\lambda}}{n_1 - 1}} \quad ,$$

and wherein the second parameter is a wavelength of the

radiation beam, where $\dfrac{dn_1}{d\lambda}$ is a dispersion of the first material and

$\dfrac{dn_2}{d\lambda}$ is a dispersion of the second material.

7.(Previously Presented) The optical arrangement according to

claim 4, wherein:

$$K \approx -\frac{(n_2-1)\alpha_2 + \dfrac{dn_2}{dT}}{(n_1-1)\alpha_1 + \dfrac{dn_1}{dT}}$$

where α_1 and α_2 are the thermal expansion coefficients, and

$\dfrac{dn_1}{dT}$ and $\dfrac{dn_2}{dT}$ are the temperature coefficients of refractive index,

of the materials from which the first and second optical elements

are formed,

and wherein the second parameter is a temperature of the

optical arrangement.

8.(Previously Presented)   The optical arrangement according to

claim 4, wherein:

$$K \approx -\frac{n_1}{n_2},$$

and wherein the second parameter is an angle of incidence of

the radiation beam.

9.(Previously Presented)   The optical arrangement according to

claim 4, wherein:

$$K \approx -\frac{(n_1 - 1)\dfrac{dn_2}{dp}}{(n_2 - 1)\dfrac{dn_1}{dp}},$$

where $\dfrac{dn_1}{dp}$ and $\dfrac{dn_2}{dp}$ are the polarization coefficients of

refractive index of the materials from which the first and second

optical elements are formed,

and wherein the second parameter is a polarization of the

radiation beam.

10. (Previously Presented) The optical scanning device

comprising the optical arrangement according to claim 1, the device

being arranged for scanning an optical record carrier having an

information layer using a radiation source.

Claims 11-16 (Canceled)